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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/810,623	03/29/2004	William A. Blair	05-1025-01	9843

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EXAMINER	
SYED, NABIL H	

ART UNIT	PAPER NUMBER
2612	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/810,623	BLAIR ET AL.	
	Examiner	Art Unit	
	Nabil H. Syed	2612	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-24 and 30-39* is/are pending in the application.

4a) Of the above claim(s) *1-17 and 25-29* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-24 and 30-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *29 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *9/26/07, 7/26/07, 3/29/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is a response to the election/restriction filed on 7/26/07. Applicants have elected Group I, claims 18-24 and 30-39, for examination. Claims 1-17 and 25-29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 7/26/07.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 34-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 34-36 recites the limitation "first means" in line 2.

Claim 37 recites the limitation "first means" in line 2 and “second means” in line There is insufficient antecedent basis for these limitations in the claims. Is “first means” and “second means” same as “first electronic circuit” and “second electronic circuit” respectively?

Double Patenting

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent

and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and In *re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claim 18 is rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 13 of U.S. Patent No. 6,026,818 in view of Rubin (6,232,878). Because varying the frequency allows for the generation of a wide variety of frequency patterns with potential improvement in the probability of detection of

tags. It is also well know in the art to use pulse width modulation to modulate the interrogation signal (for example, modulate with the tag ID, interrogator identification etc.) in order to separate the signal from the noise and also to interrogate a specific tag during any interrogation process so a passive tag does not respond to any random signal which might be just because of noise.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 18-20, 23, 24, 30, 34, 36-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (6,026,818) in view of Rubin (6,232,878).

As of claim 18, Blair discloses an apparatus comprising a device for the detection of an object contained in a work area, wherein a tag element is affixed to a larger-sized said object (see abstract), the improvement comprising:

a first electronic circuit, coupled to a transmit/receive antenna, configured to emit either one of pulse-width wideband interrogation signals or voltage varying interrogation signals (Blair discloses that a detector device (see fig. 10) is used to excite the tag with

signals over a wide bandwidth, hence comprising a first electronic circuit; see col. 5, lines 65-67; also see fig. 3) ,

wherein the tag element is adapted to respond to electromagnetic excitation by each pulse of an interrogation signal with a relatively small narrow return signal centered about a specific, but not predetermined frequency (via a tag which respond to an emitted wideband signals with a non-predetermined frequency return or response signal ; see col. 3, lines 43-46);

a second electronic circuit, coupled to said transmit/receive antenna, having wideband receiver compatibility comprising means for optimal reception (Blair disclose that the receiver is also wideband whereby it can see tags over a wide spectrum benefiting from fast transmitter signal decay; see col. 6, lines 56-58); and

a signal processor to transform the return signals into a resulting narrowband return signal having sufficient intensity to be distinguishable from ambient noise (see col. 11, lines 16-20).

However Blair fails to disclose that interrogation transmits a varying interrogation signal.

Rubin discloses a electronic article security system wherein when interrogation (via transmission system 10) transmits an interrogation signal the frequency of the alternating electric signal varies in accordance with a numerical frequency control signal; see col. 2, lines 66 through col. 3, line1).

From the teaching of Rubin it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system of Blair to include

a interrogator which transmits a varying interrogation signal as taught by Rubin in order to generate a wide variety of accurately controlled frequency patterns and with potential improvement in the probability of detection of the tags.

As of claim 19, Blair discloses that the work area is a surgical site and the tag element is of such relatively small size as not to impede the functional use of an object to which it is affixed, the object being either deformable or non-deformable (see col. 4, lines 29-36).

As of claim 20, Blair discloses that the first and second electronic circuits are contained in a handle portion to which the transmit/receive antenna is connected, the handle portion and the transmit/receive antenna constituting a hand-held scanning detection device (see col. 8, line s62 through col. 9, lines 6).

As of claim 23, 24 and 38, Blair discloses that the tag element is a low Q tag (see col. 5, lines 19-20).

As of claim 34, Blair discloses that first means includes an electronic portion configured to produce pulse-width varying wideband signals (see col. 3, lines 48-51).

As of claim 36, Blair discloses that pulses are controlled over duration and interval (over time) (see col. 6, lines 39-43)

As of claim 37, Blair discloses that the first mean includes an electronic portion configured to produce either one of pulse-width wideband interrogation signals or voltage wideband interrogation signals (Blair discloses that a detector device (see fig. 10) is used to excite the tag with signals over a wide bandwidth, hence comprising a first electronic circuit; see col. 5, lines 65-67; also see fig. 3), and

wherein the second means includes (i) a second electronic portion configured to receive and analyze the narrowband return signals, the second electronic portion including a wideband receiver containing filter and pre-amplifier circuits to reduce noise bandwidth of incoming signals and increase detection range of the interrogation and detection member (Blair disclose that the receiver is also wideband whereby it can see tags over a wide spectrum benefiting from fast transmitter signal decay; see col. 6, lines 56-58), and (ii) a signal processor to transform the response signals into a resulting narrowband return signal having sufficient strength to be distinguishable from ambient noise (see col. 11, lines 16-20).

8. Claims 21, 22, 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blair et al. (6,026,818) in view of Rubin (6,232,878) as applied to claim 18 above, and further in view of Rochelle et al. (US Pub 2001/0030610).

As of claim 21, 22, 31-33 Blair discloses all the limitation of the claimed invention as mentioned in claim 19 and 30 above but fails to explicitly disclose that the transmit/receive antenna emits the signal in each coordinate (X, Y and Z) direction.

Rochelle discloses an interrogator (via transmitter 10; see fig. 2 and fig.3) including a geometrically orthogonal set of three antenna elements (via antenna elements 43, 44, 45; see fig. 3) emits the signal in multi directional coordinate system. Rochelle also discloses that each antenna element includes a separate antenna driver (via drivers 47, 48, 49), so antennas can transmit the signal independently from each other (see paragraph [0052], fig. 3).

From the teaching of Rochelle it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the antenna of Blair to include an multi directional antenna as taught by Rochelle in order to enhance the detection process of the tags because multiple carrier signals can be transmitted using a multiple directional antenna.

9. Claims 35 rejected under 35 U.S.C. 103(a) as being unpatentable over Blair (6,026,818) in view of Lewiner et al. (4,893,118).

As of claim 35, Blair discloses all the limitation of the claimed invention as mentioned in claim 1 above but fails to explicitly disclose that interrogator produces a voltage-modulated signal.

Lewiner discloses an interrogator, which produces a voltage-modulated signal (see claim 1).

From the teaching of Rochelle it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the interrogator of Blair to include the function of producing a voltage modulated signal as taught by Lewiner since it is well know in the art that the interrogators are used to transmit an energy signal to power the passive tags.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nabil H. Syed whose telephone number is 571-270-3028. The examiner can normally be reached on M-F 7:30-5:00 alt Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery A. Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nabil H Syed
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Art Unit 2612

N.S

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